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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,182	01/24/2002	Patrick J. Hood	CRG 005 P2	9461
33805	7590	06/30/2004		
WEGMAN, HESSLER & VANDERBURG 6055 ROCKSIDE WOODS BOULEVARD SUITE 200 CLEVELAND, OH 44131			EXAMINER KUHN, ALLAN R	
			ART UNIT 1732	PAPER NUMBER

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,182

Applicant(s)

HOOD ET AL.

Examiner

Allan Kuhns

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-50 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-16, 23-26 and 40-43, drawn to a method of making a mold, classified in class 264, subclass 219.
- II. Claims 17-22 and 48, drawn to a method of ejecting molded material from a mold, classified in class 264, subclass 334.
- III. Claims 27-29, drawn to a mold, classified in class 249, subclass 127.
- IV. Claims 30-39, drawn to a method for imparting a desired contour to a substrate, classified in class 264, subclass 293.
- V. Claims 44-47, drawn to a method for casting a castable composite part, classified in class 264, subclass 299.
- VI. Claim 49, drawn to a method of withdrawing a shape memory mandrel from within a composite part, classified in class 156, subclass 166.
- VII. Claim 50, drawn to a method of manufacturing a shape memory material mandrel, classified in class 264, subclass 317.

2. The inventions are distinct, each from the other because:

Inventions I and II are related as process of making and process of using a product. These inventions are distinct because the process of making the product can be used to make a materially different product such as a mold having neither a concave nor a convex surface.

Inventions I and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2)

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that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process as claimed can be used to make another and materially different product such as a mold lacking a SMP film but whose form itself is comprised of SMP.

Inventions I and IV are related as process of making and process of using a product. These inventions are distinct because the process of making the product can be used to make a materially different product such as a mold having a smooth lower surface rather than one having a lower surface with relief features.

Inventions I and V are also related as process of making and process of using a product. These inventions are distinct because the mold formed by the process of Group I can be used to practice another and materially different process such as one in which a homogeneous product is formed.

Invention I is distinct from each of inventions VI and VII because the product of Group I can be used to mold an article in which no filament winding, as in Group VI, is involved and the mandrel of Group VII can be used in processes where molding of non-resinous materials, such as ceramic materials, which do not have a curing temperature per se, are shaped.

Inventions II and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process for

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using the product as claimed can be practiced with another and materially different product such as one lacking a film of SMP but rather one whose form is made from SMP.

Inventions II and IV are two distinct methods of using a mold. These inventions are distinct because the method of Group II could be practiced to eject a molded article having a smooth surface rather than to eject a molded article having surface relief features.

Inventions II and V are also two distinct methods of using a mold. These methods are distinct because the method of Group II could be use to eject a homogeneous article from a mold.

Invention II is distinct from each of inventions VI and VII because the mandrel itself may be formed from shape memory material rather than conducting the process by inserting a shape memory material into and mold.

Inventions III and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process of using that product such as one in which a product having a smooth surface rather than one having surface relief features is formed.

Inventions III and V are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process of using that product such as one in which a homogeneous part is formed.

Invention III is distinct from each of the inventions of Groups VI and VII because the mandrels of Groups VI and VII may themselves be formed from a shape memory material rather than using just a film of SMP material.

Inventions IV and V are distinct methods of using a mold. These inventions are distinct because the method of Group V could be used to form a composite molded product having a smooth surface rather than one with a surface having relief features.

Invention IV is distinct from each of the inventions of Groups VI and VII because the mandrels of Groups VI and VII could be used in processes where articles having smooth surfaces, rather than articles having a relief surface, are formed.

Invention V is distinct from each of the inventions of Groups VI and VII because the latter two inventions do not require the use of SMP in flowable form.

The inventions of Groups VI and VII are related as process of using and process of making a product. These inventions are distinct because the invention of Group VII can be used in a materially different process of using that product such as one in which the mandrel is withdrawn from a shaped ceramic material rather than a resinous material.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art requiring divergent fields of search for the respective inventions, restriction for examination purposes as indicated is proper.

4. A telephone call was made to Bruce Peacock on June 15, 2004 to request an oral election to the above restriction requirement, but did not result in an election being made.

5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

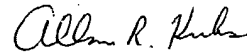
Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allan Kuhns whose telephone number is (571) 272-1202. The examiner can normally be reached on Monday to Thursday from 7:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni, can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ALLAN R. KUHNS
PRIMARY EXAMINER AU 1732

6-26-04